THE
"LOGICAL FRAMEWORK"

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PREFACE

The "Logical Framework" approach to project design, originally developed by PCI staff to facilitate AID evaluation, has been adopted as the basis for technical assistance project approval. This booklet contains copies of visual aids and other materials used to support a one-day training program in the "Logical Framework", for members of AID's Technical Assistance Bureau.

June 18, 21, and 23, 1971

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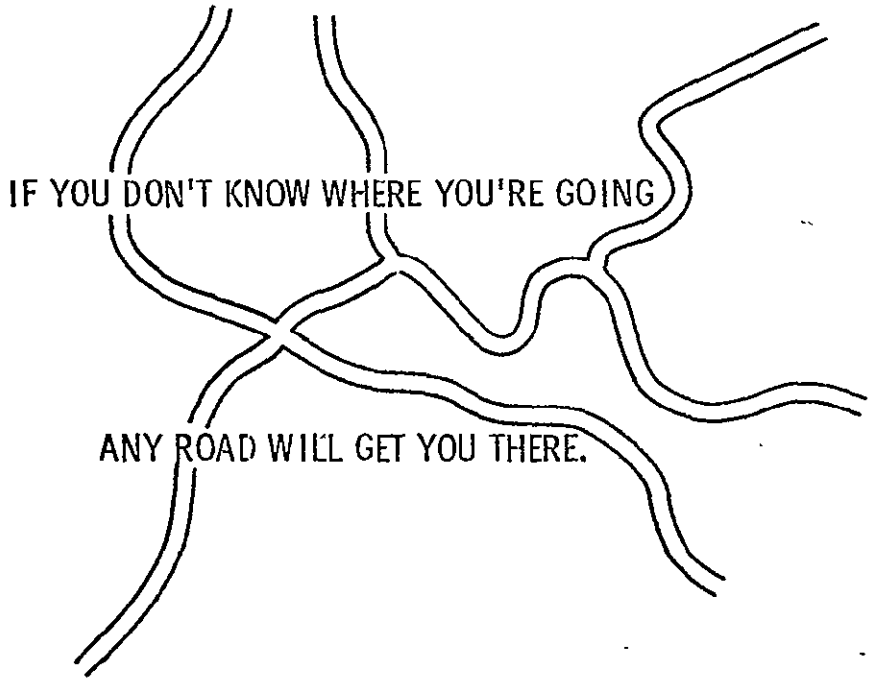
SECTION I

AGENDA: TRAINING IN THE LOGICAL FRAMEWORK AND "PABAM"

I.	9:30 a.m. - 9:50 a.m.	Introduction and Agenda
II.	9:50 a.m. - 10:30 a.m.	The Logical Framework: Design Clarification Concepts
	10:30 a.m. - 10:50 a.m.	Comments on and Discussion of Concepts
	10:50 a.m. - 11:00 a.m.	Break
III.	11:00 a.m. - 11:15 a.m.	Objective Verification: (1) Targets; (2) Means of verification
IV.	11:15 a.m. - 12:00 p.m.	Review of Sample Logical Frameworks and "PABAM's"
V.	12:00 p.m. - 12:30 p.m.	The Project Manager and his "Manageable Interest"
	12:30 p.m. - 1:30 p.m.	Lunch
VI.	1:30 p.m. - 2:00 p.m.	Summary of Key Concepts from the Morning Session
VII.	2:00 p.m. - 3:30 p.m.	Preparing the Logical Framework: Workshops in Design Clarification
	3:30 p.m. - 3:45 p.m.	Break
	3:45 p.m. - 4:30 p.m.	Discussion of Workshop Results
VIII.	4:30 p.m. - 4:50 p.m.	The Role of the "PABAM" Teams: Help Available
	4:50 p.m. - 5:15 p.m.	Discussion

SECTION II

THE LOGICAL FRAMEWORK:
DESIGN CLARIFICATION CONCEPTS


IF YOU DON'T KNOW WHERE YOU'RE GOING
ANY ROAD WILL GET YOU THERE.

THE LOGICAL FRAMEWORK:
GPOI

CLEAR STATEMENT OF:

- WHAT WE CAN ACCOMPLISH (OUTPUTS), AND
- THE IMPORTANT RESULTS WE EXPECT (PURPOSE).

CONSISTENT WITH AID EXPERIENCE, YOUR INTUITION, GOOD SCIENCE, AND GOOD MANAGEMENT.

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USES OF THE LOGICAL FRAMEWORK

- COMMUNICATION: STATES INTENT AND APPROACH CONCISELY
- DESIGN
- EVALUATION
- REDESIGN
- CLARIFIES PROGRAMMING/PROJECT INTERFACE

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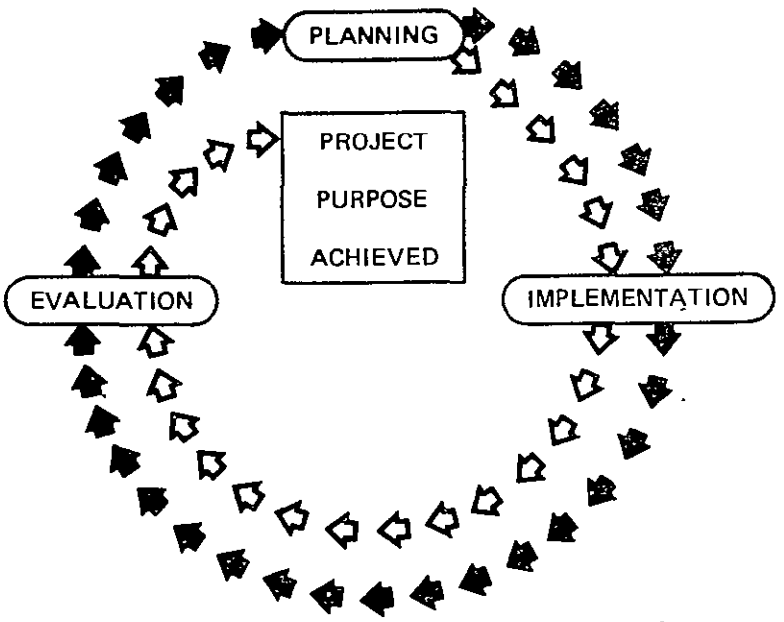
END-OF-PROJECT STATUS ANSWERS THE QUESTION:

"HOW WILL YOU KNOW WHEN THE PROJECT HAS BEEN SUCCESSFULLY COMPLETED?"



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THE PROJECT AS A SET OF LINKED HYPOTHESES

1. IF INPUTS

   THEN OUTPUTS

2. IF OUTPUTS

   THEN PURPOSE

3. IF PURPOSE

   THEN GOAL

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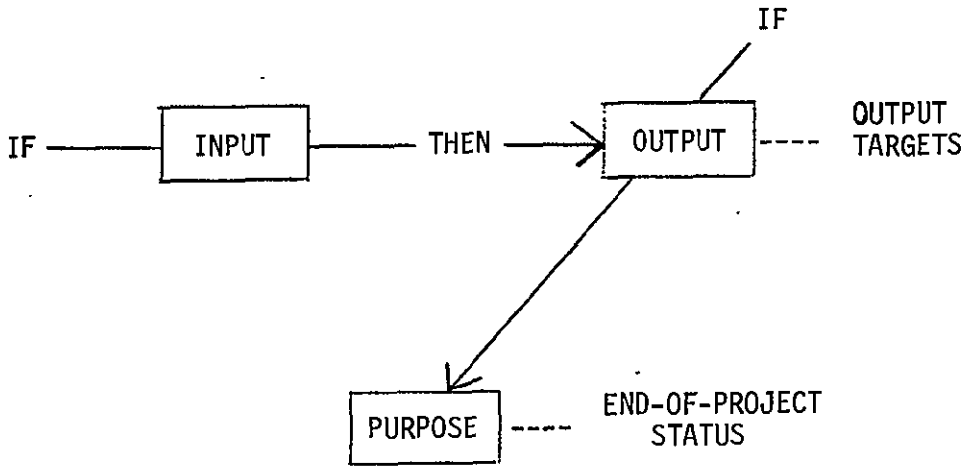

ACCEPTING THE VIEW OF A PROJECT AS A "DEVELOPMENT HYPOTHESIS", IT IS LOGICALLY FALLACIOUS TO MEASURE OUTPUTS TO PROVE PURPOSE. (YOU CANNOT PROVE THE "THEN" BY DEMONSTRATING THE "IF".)

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PURPOSE: CREATE A SELF-SUFFICIENT AGRICULTURAL UNIVERSITY

EOPS:

"EFFECTIVENESS"

HIGH DEMAND FOR GRADUATES

"SURVIVAL"

-BUDGET ASSURED
-NOT MORE THAN TEN PERCENT (YEARLY) TURNOVER OF TEACHING STAFF
-TUITION MEETS 30 PERCENT OF COSTS; TREND LINE TO 90 PERCENT WITHIN FIVE YEARS

"ADAPTABILITY"

-CURRICULUM, INDEPENDENTLY DEVELOPED BY LOCAL STAFF, MEETS NEEDS OF LOCAL AGRICULTURALISTS

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MEANS OF VERIFICATION
CLARIFIES THE TARGETS

TARGET: HIGH DEMAND FOR GRADUATES

MEANS OF VERIFICATION:

-80 PERCENT OF GRADUATES EMPLOYED IN POSITIONS ABOVE "GS-9"
-ALL GRADUATES EMPLOYED
-NUMBER AND QUALITY OF APPLICANTS INCREASES BY 20 PERCENT PER YEAR

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INPUT	50,000 TONS FERTILIZER AGR. SUPPLY CORP. ROADS & WAREHOUSES
OUTPUT	FERTILIZER USE INCREASED 20%/YEAR
PURPOSE	PRODUCTIVITY/ACRE UP 10%/YEAR
GOAL	FARM INCOME UP 5%/YEAR

ASSUMPTIONS: FERTILIZER USED ON FIELDS THAT NEED IT; CROPS CAN STAND FERTILIZATION, ETC.

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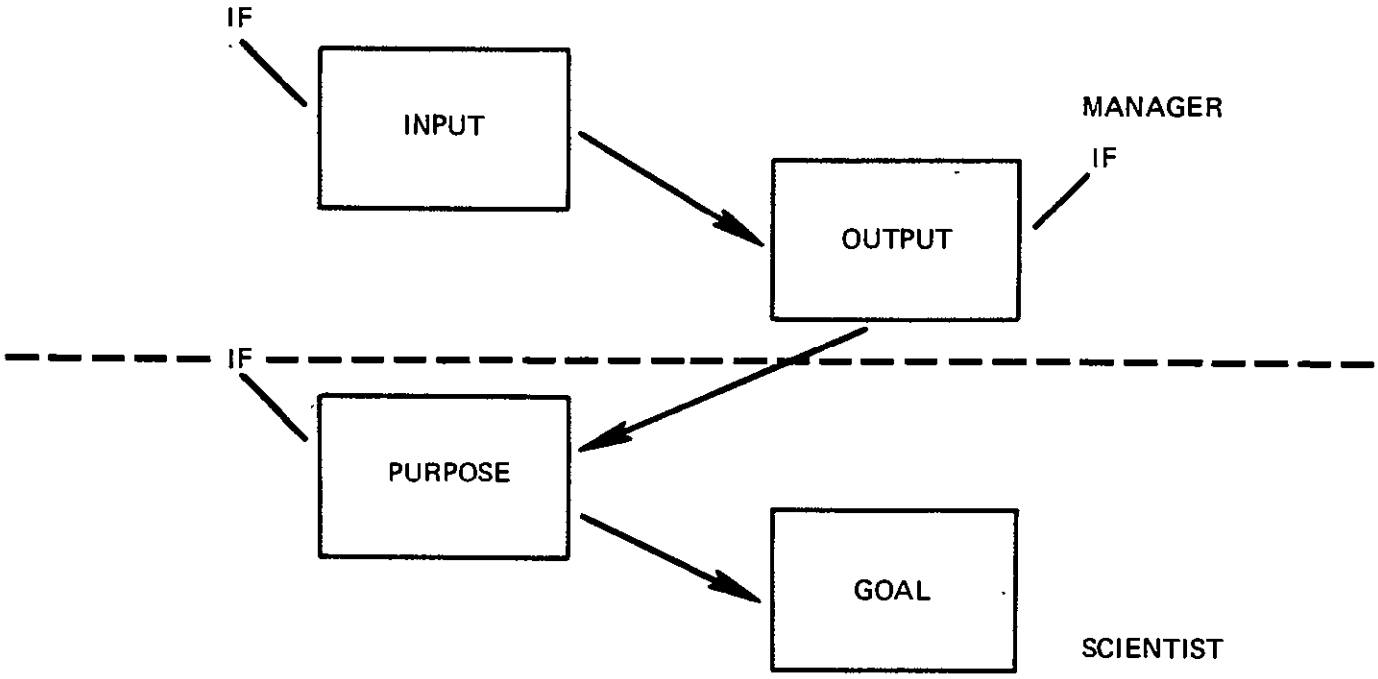
MANAGER vs. SCIENTIST



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TERMS

- MANAGEABLE INTEREST -- INPUT TO OUTPUT
- DEVELOPMENT HYPOTHESES -- OUTPUT TO PURPOSE
  PURPOSE TO GOAL
- ASSUMPTIONS -- NECESSARY, BUT NOT PART OF PROJECT (e.g., GOVERNMENT STABLE)

OBJECTIVELY VERIFIABLE INDICATOR -- MEASURES SUCCESS

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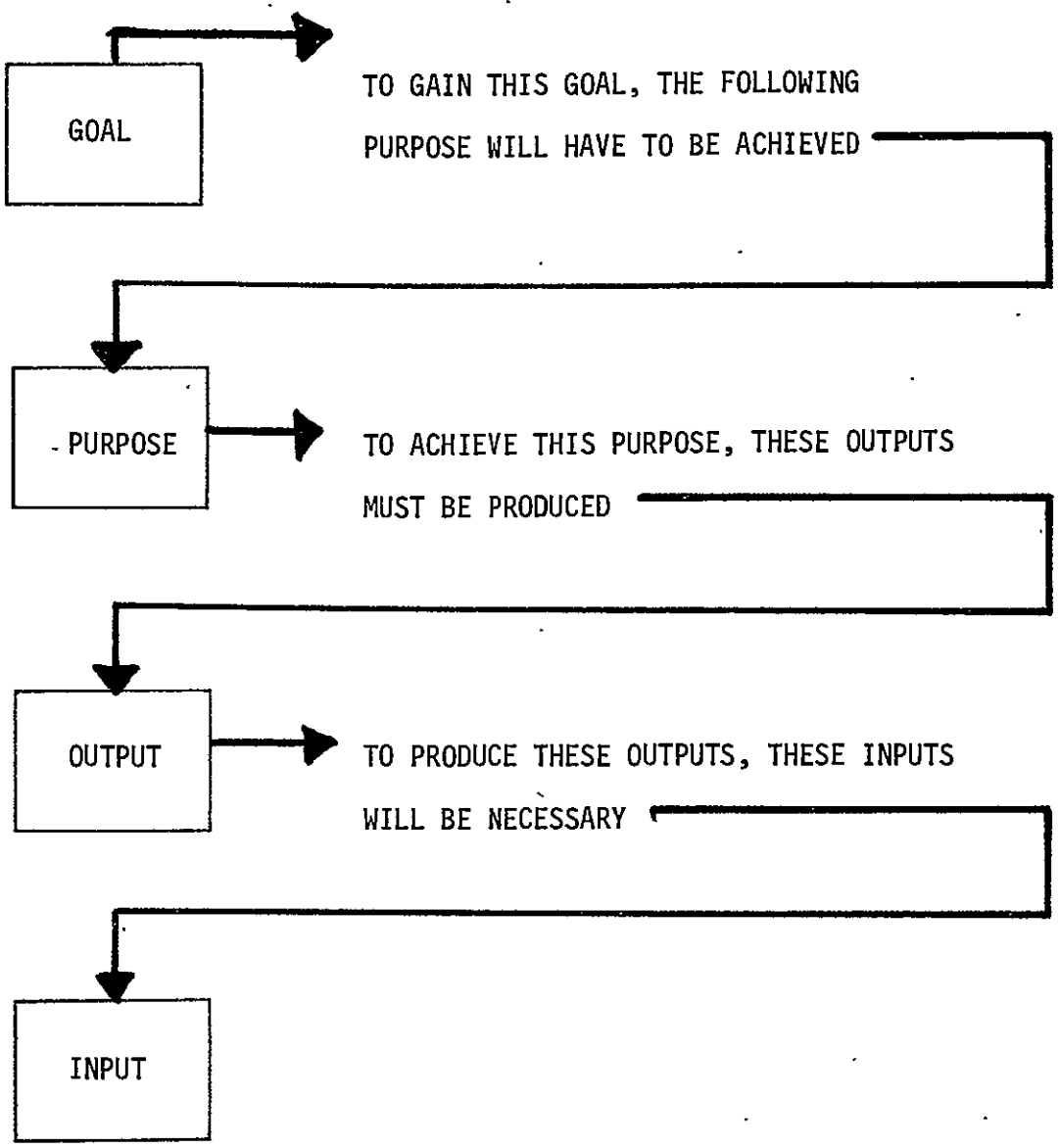
PROJECT DESIGN



BASIC PROJECT DESIGN

GOAL: COLONIZE MALARIOUS REGIONS

PURPOSE: ERADICATE MALARIA
CONTROL MALARIA?

OUTPUTS: VIABLE ORGANIZATION
ALL VILLAGES SPRAYED AS SCHEDULED

INPUTS: DDT
VEHICLES
ADMINISTRATIVE ADVISORS
TECHNICAL ADVISORS

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REDRIENTED TO MODIFIED GOAL

GOAL: MAINTAIN GOVERNMENT PRESENCE
IN RURAL AREAS

PURPOSE: CONTINUE W.H.O. PROGRAM TO
"ERADICATE" MALARIA

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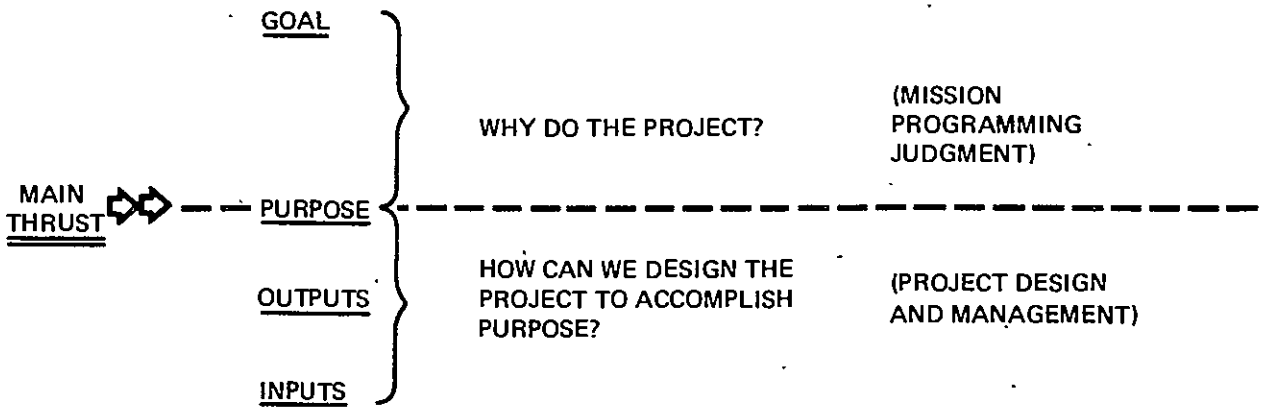

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G P O I EXAMPLE IN AGRICULTURE

WHY?	GOAL	SELF-SUFFICIENCY IN FOOD PRODUCTION
	PURPOSE	WHEAT PRODUCTION MEETS DOMESTIC DEMAND
HOW?	OUTPUTS	HIGH-YIELD VARIETY SEEDS AND COMPLEMENTARY INPUTS USED
		FARMERS MOTIVATED
		CREDIT TO FARMERS
	INPUTS	IMPORT SEED, FERTILIZER
		ASSISTANCE TO EXTENSION AGENTS
		LOANS THROUGH SUPPLIERS

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GPOI EXAMPLE IN AGRICULTURE WITH OBJECTIVELY VERIFIABLE INDICATORS

	NARRATIVE	INDICATORS
GOAL:	SELF-SUFFICIENCY IN FOOD PRODUCTION	NET IMPORTING OF FOOD
PURPOSE:	WHEAT PRODUCTION MEETS DOMESTIC DEMAND	WHEAT DELIVERED TO MARKET
OUTPUTS:	USE OF HYV SEEDS AND COMPLEMENTARY INPUTS	COMMERCIAL SALES PLUS FREE DISTRIBUTION OF SEED AND FERTILIZER
	FARMERS MOTIVATED	DEMAND FOR HYV SEED THROUGH COMMERCIAL CHANNELS WHEN FREE DISTRIBUTION IS DISCONTINUED (__% OF PREVIOUS YEAR'S TOTAL USE)
INPUTS:	IMPORT SEED, FERTILIZER	TONS OF SEED, FERTILIZER
	ASSISTANCE TO EXTENSION AGENTS	MAN-YEARS OF EXTENSION TECHNICIANS' ASSISTANCE

INDICATOR	TARGET	STATUS
FERTILIZER USE	100,000 TONS	100,000 TONS
AG. EXTENSION OFFICERS IN PLACE	7	7
NEW BARLEY SEED USED	2,000 TONS	2,000 TONS
BARLEY PRODUCTION	10%	5%

EVALUATION RESULT: PROJECT PROGRESSING WELL, 75% OF EXPECTATIONS MET ?

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OUTPUTS AND PURPOSE ARE DIFFERENT IN KIND

MEASURE OUTPUTS AND PURPOSE INDEPENDENTLY

OUTPUT	OBJECTIVELY VERIFIABLE INDICATOR	PURPOSE	OBJECTIVELY VERIFIABLE INDICATOR
1. FOOD DISTRIBUTED	TONS OF FOOD CONSUMED	PREVENT MALNUTRITION	HOSPITAL CASES OF MALNUTRITION DISEASES
2. RID DWELLINGS OF MALARIOUS MOSQUITOES	HOUSES SPRAYED	ERADICATE MALARIA	MALARIA CASES REPORTED
3. DEVELOPMENT BANK CREDIT	LOANS TO NEW BUSINESSES	SUCCESSFUL NEW BUSINESSES	NUMBER OF BUSINESSES SURVIVING TWO YEARS

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PURPOSE:

RURITANIA UNDERTAKES REALISTIC PROGRAM FOR INCREASING RURAL EMPLOYMENT

OUTPUTS:

-REALISTIC PROGRAM(s)
-HOST PLANNERS ENDORSE PROGRAM
-HOST DECISION MAKERS ARE AWARE OF NEED
-DONOR OR DONORS PROVIDE FUNDS SUFFICIENT FOR PILOT PROJECT

INPUTS:

- RESEARCH STUDIES IN KEY AREAS
- ADVICE TO HOST PLANNERS
- PROMOTIONAL ACTIVITIES AND DISCUSSIONS
- MANAGEMENT AND TECHNICAL TRAINING TO HOST STAFF

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PURPOSE: RURITANIA UNDERTAKES REALISTIC PROGRAM FOR INCREASING RURAL EMPLOYMENT

EOPS:
(1) PILOT PROJECT IMPLEMENTED
(2) HOST BUDGET CONTAINS PROVISION FOR FIVE-YEAR POST-PILOT EFFORT
(3) NEW PROJECT INITIATED TO ENSURE THAT:
   a. HOST PERSONNEL COMPETENT TO MANAGE LARGE-SCALE PROGRAM;
   b. PROMISED FUNDS ARE MADE AVAILABLE.

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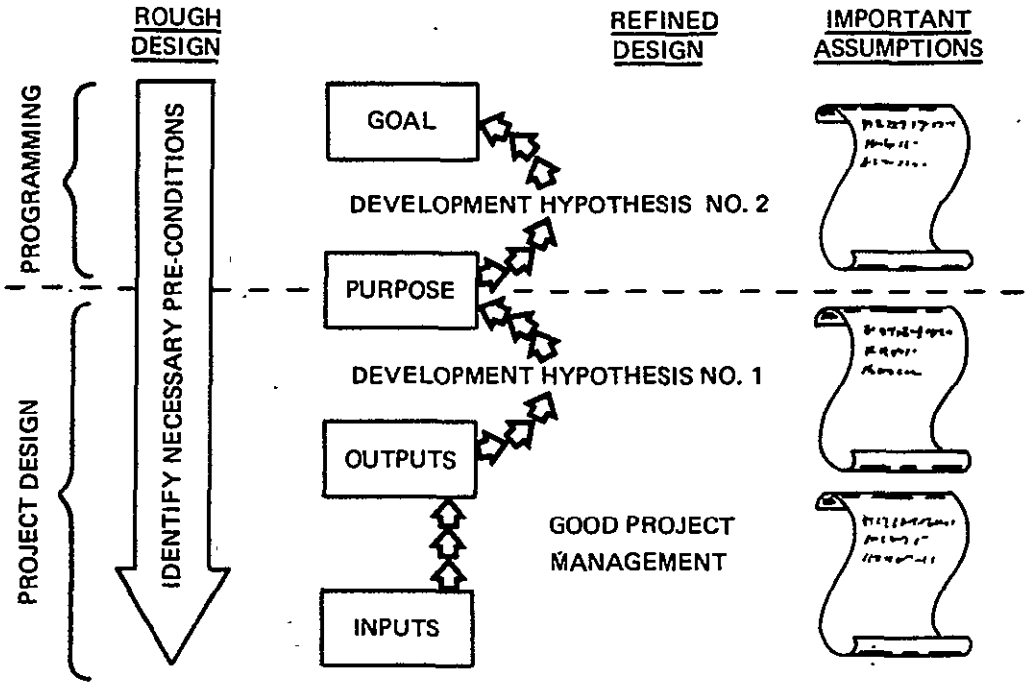
credibility of assumptions at highest level of credibility for project.

PROJECT DESIGN



ROUGH DESIGN — NECESSARY CONDITIONS IDENTIFIED

REFINED DESIGN — CONFIDENCE IN LINKAGES

SECTION III

OBJECTIVE VERIFICATION

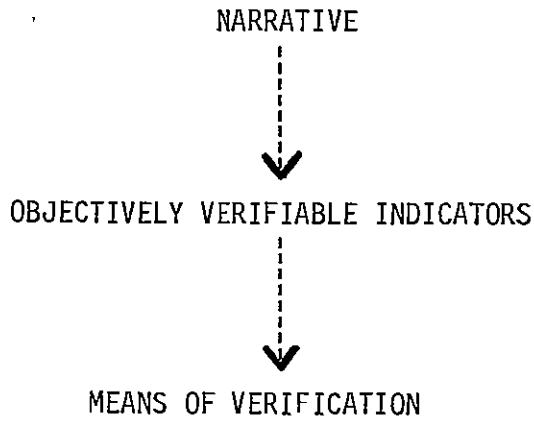
OUTPUTS AND PURPOSE ARE DIFFERENT IN KIND

MEASURE OUTPUTS AND PURPOSE INDEPENDENTLY

Outputs	Evidence	Purpose	Evidence
EVIDENCE & ANALYSIS FOR POLICY-MAKERS	COMPETENT RESEARCH COMPLETED AND DISTRIBUTED	POLICY IMPROVED	POLICY DECISIONS CONSISTENT WITH RESEARCH FINDINGS
HYV SEED USE UP 20%	SALES PLUS FREE DISTRIBUTION UP 20%	BARLEY PRODUCTION UP 10%	ESTIMATED SALES PLUS FARM CONSUMPTION
INCOME TAXES ENFORCED	SUCCESSFUL PROSECUTIONS	MORE INCOME TAXES	TAX REVENUES RISE 50% FASTER THAN GNP

"HORIZONTAL" LOGIC OF "GPOI"

SUCCESSIVELY REFINES OBJECTIVES AT EACH LEVEL



MEASURING INSTITUTION BUILDING

OUTPUT LEVEL INDICATORS ORGANIZATION IS FUNCTIONING	PURPOSE LEVEL INDICATORS ORGANIZATION FULFILLING ITS MISSION
COUNTERPARTS TRAINED PARTICIPANTS TRAINED RESEARCH COMPLETED FACILITIES READY & USED	1. EFFECTIVENESS IMPACT VS. NEED (40 GRADS PER YEAR VS. 200 JOB VACANCIES NOW PLUS NEW JOBS ANNUALLY). 2. EFFICIENCY CHEAPER THAN ALTERNATIVE APPROACHES (UNIVERSITY VS. TRAINING ABROAD). 3. STAYING POWER • EMPLOYERS COMPETE FOR GRADUATES. • BUDGET ASSURED. • NEW PROBLEMS LEAD TO NEW INITIATIVES CONSISTENT WITH DOCTRINE X.

MEANS OF VERIFICATION

HOW DO WE GET THE EVIDENCE ?

- AVAILABLE FROM NORMAL SOURCES
- SPECIAL DATA GATHERING REQUIRED
  - -- WHO WILL PAY FOR IT ? IMPLEMENT IT ?
  - -- HOW MUCH DATA GATHERING IS WORTHWHILE ?

EOPS FOR TAB-INITIATED PILOT TRAINING PROJECT

GOAL	AID-supported FP programs achieve objectives.	
PURPOSE	Provide Nurse-Midwives to meet demand from AID-supported FP programs.	• Pilot training projects functioning smoothly in 10 LDC institutions. • Project initiated to train staff for full-scale implementation. • Intermediary (e.g., AID Bureau) agrees to support full-scale implementation.
OUTPUTS	Curriculum Trained Staff Materials for Instruction Procedure for Planning Management & Evaluation	
INPUTS	U.S. Staff LDC Staff Travel Printing & Audio Visuals Equipment --- Added cost for adaptation & Implementation of training in LDC institutions after first 10.	

SECTION IV

Sample Logical Framework

The following material characterizes a fictionalized AID project to demonstrate the "Logical Framework" approach. A "good" logical framework is one that is internally consistent and captures the spirit of the project.

Fictionalized

PROP

August 1968

Country : Kenya
Project : Radio Correspondence Education
Number : 615-11-650-927
Duration: Fy 1969 - FY 1975
Cost in Thousands of Dollars:

	Fiscal Years						
	1969	1970	1971	1972	1973	1974	Total
U. S.	270	170	170	170	100	70	$1,050
GOK**	250*	200	300	350	400	450	$1,900 (In Kenya £)

* - includes $200,000 for equipment.
** - represents GOK budget for the Radio Correspondence Department.

Summary:

This is a project designed to assist the Government of Kenya raise the educational standards of people generally and of primary school teachers in particular through a series of 18 educational courses in seven subjects: English, Swahili, History, Mathematics, General Science, Biology and Geography, taught by a well-utilized combination of radio and correspondence instruction.

Background:

Kenya is an agricultural country with a largely rural population. It is composed of many tribes with little contact with the central government. Poverty, disease and low levels of education exist in most rural areas. It is GOK policy, which the U. S. supports, to (1) create a unified nation as soon as possible through universal education up to the sixth grade, and (2) to expedite Kenyanization through expansion of secondary education to meet Kenya's manpower needs. Unfortunately, the GOK does not have the resources to establish in the near future an adequate nationwide school system with properly trained teachers. This problem is particularly acute in secondary schools. Today, only 15% of those qualified can be admitted to secondary schools.

Strategy:

A survey by the Allstate University showed that Radio/Correspondence courses could help fill the educational gap. The objectives of the proposed project are to set up a functioning R/C program with a full high school curriculum which can provide an additional means to assist the 16,000 under-qualified (P-3) teachers in Kenya's primary schools to increase their capabilities. There are in addition, 10,000 unqualified primary school teachers (Kenyan citizens) who lack adequate background to be qualified as P-3.

Strategy (Cont'd)

In addition, the project will provide the means for other Kenyans to continue their secondary education at considerably less cost than would be required to provide the necessary conventional classrooms the teachers.

The GOK has already identified personnel to act as counterparts to the Allstate University contract team, and has reserved space and funds required to establish the radio/correspondence school facilities.

Supporting Justification:

In addition to the need to improve the background of the primary school teachers, there are three major factors requiring this project:

a. The high pupil dropout and repeating rates (averaging 40%) are due in part to poor teaching.

b. The GOK is about to launch a higher minimum standard of preparation for primary school teachers which would theoretically disqualify the 26,000 primary school teachers at P-3 and lower levels. It is hoped that 8,000 teachers can pass the P-2 exams by 1975.

c. The GOK educational system relies heavily on expatriates. Of the 7,000 hard to fill jobs in the total educational system, 6,000, or 86% are filled by non-Kenyans. It is GOK policy to reduce dependence on expatriates to 40% out of the expected 15,000 hard to fill jobs in the education system in 1975.

Informational Note:

In Kenya, a P-2 teacher is a fully qualified high school graduate, who can pass the P-2 exam. There are about 4,000 in the system.

A P-3 has seven to ten years of education. Considered acceptable as a teacher, but under-qualified. There are 16,000 in the payroll.

Below this level, there are 10,000 teachers with less than seven years of education.

Course of Action:

1. The Allstate University will install a three man team in Nairobi to work until 1975 with Ministry of Education counterparts and local staff to:

a. Prepare correspondence courses in the seven subjects.

Course of Action (Cont'd)

b. Prepare taped lectures supplementing the correspondence courses.

c. Develop publicity to bring these courses to the attention of potential students, particularly primary school teachers.

d. Train R/C institute staff members in radio education techniques and course presentation.

e. Train institute staff members in correspondence education techniques including registration of students, handling course materials, receiving, grading, recording and mailing examinations, etc.

f. In the first two years, working with the Ministry of Education, the University will develop and test the curriculum. Fifteen Americans will be trained in the U. S. for the key R/C posts (10 course writers and five supervisory personnel). $200,000 worth of equipment will be installed, and personnel trained in its use and maintenance.

g. Sixty instructors (lesson markers) will be trained and added to the staff each year; a total of about 30 subordinate R/C staffers will also be hired.

2. Broadcasts will begin with the first English course in FY 1970 and will build up until all 18 courses are being offered by 1975.

	Fiscal Years							
	1969	1970	1971	1972	1973	1974	1975	Total
Courses offered (cum)	-0-	4	8	12	16	18	18	18
Enrollment	-0-	1500	3,500	6,500	10,500	20,000	5000	20,000

(*P-3 teachers constitute approximately 16,000 of total)

The Voice of Nairobi reaches every part of the country with a powerful transmitter. There are 178,000 licensed radio receivers in Kenya today.

3. AID/W (TAB) will undertake a research sampling program of 2,000 students to determine the effectiveness of the R/C program and its effect on the total educational system.

Date: August 10, 1968

"A" No Changes

PROJECT LOGICAL FRAMEWORK

A PROJECT DESIGN BASED ON THE LOGICAL FRAMEWORK OF A TECHNICAL ASSISTANCE PROJECT
Fictionalized

PROJECT LOGICAL FRAMEWORK

Evaluation for Period 7/70 to 6/71

Date Prepared 8/15/71

Project Title Radio Correspondence Education

TOTAL FUNDING 69 - 75: U.S. $950,000

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Program or Sector Goal: Assist the GOK in its policy to reduce dependence on expatriates by preparing qualified Kenyans for jobs requiring secondary level education.	Measures of Goal Achievement: Reduced dependency on expatriates from 60% filling jobs requiring no more than secondary education or equivalent to 25% by 1975.	Reivew GOK personnel records	Sufficient primary graduates for training.
Project Purpose: Create a viable radio/correspondence institution which will provide secondary education opportunities for students who cannot attend existing secondary schools, with emphasis placed on the training of primary school teachers.	Conditions Expected at End of Project: 1. R/C staff operates program for 1 year with Allstate in strictly advisory role. 2. 10,000 enrollees have completed a 2 year secondary education program via R/C by 1975. 3. GOK $260,000 per year is assured. 4. R/C courses are accredited. 5. Evidence that R/C system and trained teachers are effective. 6. Qualify at the P-2 level by 1975 after R/C training 8,000 additional primary school teachers	1. Contractor reports 2. School records 3. Budget item approved 4. Letter from Min-Ed to R/C unit 5. Research study 6. Review of Ministry of Education personnel records	1. GOK continues to give high priority to secondary eduation 2. R/C staff have incentive to stay with this program 3. R/C students are motivated to complete education and pass exams.
Kinds of Output 1. Trained Kenyan personnel for key R/C posts. 2. All other necessary R/C staff recruited and trained. 3. Courses prepared, taped, and broadcast. 4. Correspondence material written, printed and mailed. 5. Student enrollment 6. Lesson marking system in operation 7. Research on effectiveness of R/C program and teachers trained.	Magnitude of Outputs: 1. 15 trained by 1975 2. 270 by 1973 3. 18 courses by 1974 4. 18 courses by 1975 5. 20,000 by 1975 6. Maximum four weeks to return graded lessons to enrollee 7. Research report completed	1. Inspection of R/C personnel records 2. R/C personnel records 3. Broadcast station records 4. R/C unit reports 5. R/C enrollment figures 6. Survey of R/C records 7. Report completed	Participant trainees for key posts Enough R/C staff trainees Broadcast time will be provided
Inputs: 1. On the job training and assistance a. Preparation of course materials b. Lesson marking c. Management and administration 2. Course development assistance 3. Development of publicity 4. Participant training: a. Supervision b. Course writing 5. Related commodities 6. Research on R/C effectiveness	Implementation Schedule (*Target Dates*): 1. a. Four advisor years b. Three advisor years c. Three advisor years 2. Two advisor years 3. One advisor year 4. a. Five trainee years b. Ten trainee years 5. $_____ 6. TAB Team* *All except research under contract with Allstate University. Three full time advisors planned.		

"B" In clarifying project design, it helps to:

1. Get rid of extraneous words, and
2. Separate means from ends (phrases in brackets).

PROJECT LOGICAL FRAMEWORK

A PROJECT DESIGN BASED ON THE LOGICAL FRAMEWORK OF A Fictionalized

Project Title: Radio Correspondence Education

aluation Period 7/70 to 6/71

ite Prepared 8/15/71

,000

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Program or Sector Goal: ~~Assist the GOK in its policy to~~ Reduce dependence on expatriates [by preparing qualified Kenyans for jobs requiring secondary level education]	Measures of Goal Achievement		
Project Purpose: Create a viable radio/correspondence institution [which will provide secondary education opportunities for students who cannot attend existing secondary schools, ~~with emphasis placed on the training of primary school teachers.~~]	Conditions Expected at End of Project.		
Kinds of Output	Magnitude of Outputs:		
Inputs:	Implementation Schedule (*Target Dates*)		

PROJECT LOGICAL FRAMEWORK

"C" There may be many "levels", or "linking hypotheses" between a project and its goal -- make explicit as many of these as are necessary to make the statement "if purpose, then goal," plausible to you and your management. 1

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Program or Sector Goal: Reduce dependence on expatriates Prepare qualified Kenyans for jobs requiring secondary level education Provide secondary education opportunities for students who cannot attend existing secondary schools.	Measures of Goal Achievement:		
Project Purpose: Create a viable radio/ correspondence institution	Conditions expected at end of project:		
Kinds of Output	Magnitude of Outputs:		
Inputs:	Implementation Schedule (Target Dates)		

PROJECT LOGICAL FRAMEWORK "D"

There is no "correct" logical framework -- but clarifying purpose may make your alternatives clearer.

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	IMPORTANT ASSUMPTIONS
Program or Sector Goal: Improve Primary Education: Reduce dependence on expatriates without reducing quality or slowing growth of primary education.	Measures of Goal Achievement: Universal primary education in nine provinces by 1975	expansion of primary education at planned rate.
Project Purpose: Upgrade marginally qualified and unqualified African teachers already teaching in primary schools and recruit and train new teachers for the expanding school system.	Condition Expected at the End of the Project: 1-100% of schools have majority African staff by 1975. 2-unqualified teachers reduced (from 70% to 8,000 now) to 30% of 16,000 positions. 3-25% of children of age___ graduates from primary school in 1975. 75% pass exam at end of fourth grade. 4-evidence of improvement in teaching behavior; results of radio vs. other kinds of training for primary school teachers.	1-Govt. budget to support expanded primary education 2-trainees will stay in primary school teaching. 3-graduates will apply skills
Outputs: 1-trained advisors for key posts 2-equipment 3-trainees pass P2 exam 4-research about effect on classroom behavior of teachers; radio vs. alternate training for primary school teachers	Output Targets: 1-all key positions staffed with qualified personnel by 1974 2-equipment in place and working 3-trainees enrolled, taking exam; 8,000 passing, gaining promotions 4-research design executed 5-non-radio programs to teach subjects needing practical work launched to supplement R-C training by 1974.	enough teacher trainees.
Inputs: 1-advisors from University of X 2-commodities 3-research on alternatives to reach trainees currently teaching in primary schools.	Budget & Implementation Schedule: 1-contract for $___ and workplan in PIP, parts 1, 3, 4, and 5.	

SECTION V
THE PROJECT MANAGER
AND THE
"MANAGEABLE INTEREST"

THE PROJECT MANAGER

- PERSONAL SENSE OF RESPONSIBILITY AND COMMITMENT
- TEXTBOOK "ACCOUNTABILITY"
- INFLUENCE, PERSUASION, COORDINATION - THE "REASONABLE MAN".

A PROJECT IS A "MANAGEMENT CONTRACT"

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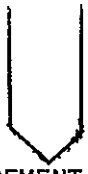
"PROJECT MANAGEMENT"

TRANSLATES

- PERSONAL COMMITMENT
- "TEXTBOOK" ACCOUNTABILITY



A "MANAGEMENT CONTRACT"

-2-

THE PROJECT MANAGER

- HAS "CONTRACTED" TO MANAGE INPUTS TO PRODUCE OUTPUTS.
- MUST USE ALL REASONABLE MEANS TO ENSURE SUCCESS.
- THE LOGICAL FRAMEWORK ENSURES THE "MEETING OF THE MINDS".

-3-

APOLLO 13 PROJECT MANAGER

RESPONSIBILITY: SUCCESS OF APOLLO 14
AUTHORITY: (?)

APOLLO 14 PROJECT MANAGER	LAUNCH VEHICLE CONTRACTOR	15 TRACKING STATIONS	U. S. 7th FLEET	OPERATIONS CENTER	ASTRONAUTS

-4-

AID PROJECT MANAGER

OTHER BUREAUS	COOPERATION MISSIONS	CONTRACTOR	HOST COUNTRY

-5-

GUIDELINES FOR REFINING THE "MANAGEABLE INTEREST"

- WHAT CAN YOU RESPONSIBILY COMMIT TO ACCOMPLISH?
- IS IT PLAUSIBLE THAT WHAT YOU CAN ACCOMPLISH (OUTPUTS) WILL RESULT IN SOMETHING IMPORTANT (PURPOSE)?

-6-

SECTION VI

SUMMARIES OF KEY CONCEPTS

A list of mnemonic statements has been prepared to facilitate recollection of the key concepts related to the "logical framework." You should review and modify this list as appropriate to your needs: These mnemonic statements are presented in three categories:

A. Logical Framework (GPOI) concepts;

B. Tools in design clarification;

C. Techniques to simplify filling out the Matrix (a Logical Framework).

A. LOGICAL FRAMEWORK CONCEPTS

1. GPOI: Projects are "experiments" in the development science -- Linked hypotheses of the form: I --→ O --→ P --→ G.

2. Manageable interest versus development hypotheses.

3. Objective verification: (1) targets, and (2) means of verification.

4. End-of-project status: objective verification of success (purpose level only).

5. EOPS (purpose-level verification) distinct from output verification.

6. Each level of "GPOI" must state the conditions necessary and sufficient to result in next-level achievement.

7. Assumptions are necessary conditions not under Project Manager's control or influence.

8. Concept of "development hypothesis" applies at every level above "manageable interest."

B. TOOLS IN DESIGN CLARIFICATION

1. The "Logical Framework."

2. M.O. 1026.1, Supplement 1, Part 1.

3. The TAB task teams headed by E. Rizzo and T. Barnicle.

4. Knowledgeable colleagues available as resource persons to help you ensure: (1) the plausibility of your hypotheses and (2) the realism of your assumptions.

C. TECHNIQUES FOR DESIGN CLARIFICATION

Narrative Summaries

1. Anchor the project by succinctly stating what is clear - purpose, outputs, or even inputs.

2. Don't move words around - clarify and "crystallize" the important concepts.

3. Be brief.

4. Eschew "improve", "upgrade", "increase", etc. - be concrete about how much or what is expected.

5. Management includes influence and persuasion.

6. Are each of the I - O - P - G links plausible? Necessary and sufficient?

7. Means versus ends.

Objective Verification of EOPS

1. How will you know it's successfully completed? Kick a tire?

2. All projects must end. Will AID continue to "improve" Ruritanian agricultural production after U.S. standards have been surpassed?

3. EOPS conditions signal success as opposed to outputs, which are conditions necessary to ensure success.

Objective Verification of Outputs

1. "When", is a target for verifying a "yes-no" event.

2. Qualitative targets require that performance standards be set in advance.

3. Verify what's important, not what's easily verifiable. Your targets are the necessary conditions not the measurable ones.

4. Artful verification is good science if postulated in advance. It is suspect when done post facto.

5. Multiple indicators.

Assumptions

1. Outputs and assumptions equal the necessary and sufficient to achieve purpose.

SECTION VII

CASE PROCEDURE

1. READ BACKGROUND INFORMATION.

2. FILL OUT LOGICAL FRAMEWORK TO CLARIFY CURRENT PROJECT DESIGN.

3. REVIEW LF TO IMPROVE PROJECT IF NECESSARY -- e.g., TO INCREASE CONFIDENCE IN THE "IF INPUTS, THEN OUTPUTS" AND "IF OUTPUTS, THEN PURPOSE" STATEMENTS.

4. FILL OUT PABAM AS FOR NEW PROJECT (INCLUDE ASSUMPTIONS).

The following case material is based on a TAB project in Population. The project has been fictionalized for use in this workshop.

Project Title:

Accelerated Feedback for Guidance of Family Planning Programs

Project Life:

FY 1971 - FY 1973

Project Cost:

U.S. Dollars 482,311

A. SUMMARY DESCRIPTION

This project seeks to establish systems for rapidly processing client records and other service and evaluation data with rapid feedback of information to meet the management and service needs of the various levels of the family planning organization.

The service statistics system would produce in its final form, information on 1) volume of new and continuing acceptors, 2) their characteristics and contraceptive methods, 3) their continuation rate within the service system, 4) resource utilization rates to achieve the above outputs, 5) a sampling frame for more detailed continuation rate surveys to investigate behavior of those who have "dropped out" of the program, 6) figures on the percentage of the population covered by the program. This information would be available not only on a countrywide but a regional, district, and in part a clinic basis. At the clinic level information on missed visits and follow-up priority of individual clients will also be available.

While the emphasis would be placed on flexibility and responsiveness to host country felt needs, (both in implementation and maintenance) common elements among f.p. programs would be taken into consideration centrally to minimize the amount of tailoring necessary for each country.

AID participation in this project will lead to the completion of three tasks which are fundamental for the operation of the system: 1) generation of the computer programs necessary for the rapid feedback and analysis of service statistics and other evaluation data, 2) development of detailed manuals and regional seminars designed to arouse interest in the approach and explain its implementation, and 3) the development of sufficient expert manpower to do the on-site work of implementing such information systems.

B. BACKGROUND

For a family planning program to operate successfully, it is important not only that clients receive initial services but that they receive follow-up services and/or supplies. Most family planning programs at present do not have specific systems to keep track of clients. Those which do exist are manual and are usually inadequate.

Successful program operation also requires competent administration at all levels of the program. Competent administration in turn requires reliable, timely and relevant information about program operations. However, program administrators should receive only information they can use and should not be required to weed through voluminous reports to isolate relevant information.

Presently most family planning administrators must rely upon manually prepared reports of program operations. Clinics typically summarize their operations during the reporting period, citing gross numbers of persons served, supplies used, etc. Some programs require clinics to report separately the numbers of initial and follow-up visits by method. A few require initial visit forms to be sent to a central processing point but do not do the same with return visits. Such an approach gives no information on patient continuity or on specific individuals needing service.

In the U.S., Jamaica and Guatemala, systems have been devised for the rapid processing of client records by computer with information specifically tailored to the special needs of the respective levels of the family planning organization. Because the computer is able to process these client records separately for each clinic, the clinics are not required to prepare summary reports. (The flow of summary reports is, in fact, reversed since the center is able to supply them to the clinic, district,

region, etc.) In general the introduction of such systems leads to a net reduction in the clerical work required of clinical personnel, permitting them to devote more of their time to providing services.

An important benefit of the system is that clinics have lists of clients who should be seen. If program administrators view follow-up as important, these lists are likely to be used by the clinics to initiate follow-up activities.

Because the computer can identify records for individual clients, it is able to link information for a series of visits by the same individual. Much more meaningful statistics are possible, including the derivation of continuation rates by contraceptive method and by characteristic of acceptors. Moreover, data may be compiled by clinic, district, region, etc. Further, if the system is so designed, performance data may be generated for individual family planning workers.

For district, regional or national administrators, the system provides information about performance by individual units and/or individual workers under their supervision. Lists of those units and/or workers with the best and/or worst performance may be obtained, thus enabling administrators to focus on them. By applying what is learned about factors contributing to the superior or inferior performance for the respective units, administrators may be able to improve operations of the overall program.

The basic methodology is well established and can be applied in LDC's without long periods of experimentation. Moreover, computers are now widely available throughout the less developed world and preliminary explorations suggest that time can be obtained on them at reasonable cost. Many countries are moving to implement such systems. Among these are

several which have substantial family planning programs, and at the same time, basic computer equipment and competence. Some of these have attempted to adopt the inadequate systems used by neighboring countries without addressing their own needs. These groups need technical back-stopping, especially in the area of computerization, to maximize the effectiveness of their family planning program management. This must be available soon to meet the rising demand for such evaluation systems.

C. STRATEGY

No single contractor has been able to take on the entire task, but several contractors have submitted proposals to carry out components of this task. One contractor will emphasize the computer software development (and the testing of that software in two host country sites) and the other the development of trained manpower and installation of the general system. This approach should produce a coherent project attaining the goals stated in paragraph one.

The contractors who have proposed to work on various components of this project are: 1) Battelle N.W., 2) The Bureau of Census, ISP.

The Bureau of Census will furnish the more general service statistics manuals, organize and implement both regional and domestic seminars on service statistics, develop computer programs to perform higher level analysis of the service statistics and other evaluation data, furnish TDY consultants to implement these computer programs and train host country personnel in their utilization.

D. PLANNED TARGETS, RESULTS, AND OUPUTS

This project is expected to produce:

1. A computer program generator operable on the IBM 360-25 (and more powerful models in that series) and the ICL 1900 series. This core program will generate COBOL source programs and will perform the edit, file maintenance, sort, and report generation functions associated with client record information systems. Due four months after start of project.

2. A set of manuals which explain the use of the above computer program and more broadly the use of the computer in maintaining client record systems. Due with above.

3. A set of manuals on the use of service statistics in the evaluation of f.p. programs. Focus of this set of manuals will not be on the computer. Due five months after start of project.

4. A minimum of three seminars annually to be held either in Washington, or a region. These will be of approximately three weeks duration and will cover one of three areas: a) general considerations in instituting a service statistics report system; b) application of computer and the above computer program to the processing of service statistics, c) use of the computer in other aspects of f.p. evaluation. Initially the first two topics will have priority.

5. A permanent staff will be maintained to conduct the seminars, provide individualized training in both the program generator use and general evaluation and programming (the resources at CDC and Tennessee will be used to give the participants a feel for the actual operating

system) in Washington, implement the program generator in host countries through TDY assignments (also covering related follow-up), and develop computer programs to expand the capability for the analysis of service statistics and other evaluation activities.

E. EVALUATION

As a necessary precursor to any later evaluation of project effectiveness the contractors will conduct a simple study of the present system used in each country. This will include data on cost of operation, if available. The data obtained will be useful in analyzing and comparing the utility and costs of the present and proposed client record and feedback systems in family planning. This analysis will also include data on the manpower presently available to run the proposed systems and the efforts needed to develop an adequate supply of such manpower.

TA/POP/AE will also work closely with Census on the content of the manuals and will review them in draft.

TOTAL PROJECT SCHEDULE OF DOLLAR OBLIGATIONS:

"ACCELERATED FEEDBACK TO GUIDE F.P. PROGRAMS"

	FY 71	FY 72	FY 73	TOTAL
Total Contractors	23,697	27,908		51,605
Total Bureau of Census	43,905	195,887	190,914	430,706
Total	67,602	223,795	190,914	482,311

CONTRACTOR BUDGET FOR FY 71

ACCELERATED FEEDBACK FOR GUIDANCE OF F.P. PROGRAMS

(Software Development)

Wages & Salaries	$14,220
Travel	11,650
Other, Misc.	12,715
Overhead (71% Wages & Sal.)	10,100
Fee	2,920
TOTAL	$51,605

ACCELERATED FEEDBACK FOR GUIDANCE OF F.P. PROGRAMS

(IMPLEMENTATION MANPOWER)

BUREAU OF THE CENSUS BUDGET

	FY 71	FY 72	FY 73	TOTAL
Wages & Salaries 16MM (including benefits & anticipated pay increases)	87 MM 26,103	87 MM 125,620	131,595	283,318
Consultants	8,920	8,920	2,230	20,070
Travel - Dom & Int	2,000	2,500 14,500	500 14,500	5,000 29,000
Computer		6,000	6,000	12,000
Printing		3,000	2,000	5,000
Workshop Costs		3,000	3,000	6,000
Other Misc.	200	3,000	2,500	5,700
Overhead 18%	6,682	29,347	28,589	64,618
TOTAL	43,905	195,887	190,914	430,706

Practical Concepts Incorporated

AID1020-28(2-71)

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Life of Project:
From FY _____ to FY _____
Total U. S. Funding _____
Date Prepared: _____

Project Title: _____

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Program or Sector Goal: The broader objective to which this project contributes:	Measures of Goal Achievement:		Assumptions for achieving goal targets:
Project Purpose:	Conditions that will indicate purpose has been achieved: End of project status.		Assumptions for achieving purpose:
Outputs:	Magnitude of Outputs:		Assumptions for providing outputs:
Inputs:	Implementation Target (Type and Quantity)		Assumptions for providing inputs:

SECTION VIII

GLOSSARY OF TERMS

ASSUMPTIONS	Things that must happen if the project is to succeed, but which are not directly controlled by the Project Team. (For example, if our purpose is to increase agricultural productivity, and our goal is to increase farm income, then we must assume that there are sufficient roads, markets, etc., to translate agricultural produce into real income.)*
DEVELOPMENT HYPOTHESES	"If outputs, then purpose" is called the project development hypothesis. The hypothesis that purpose will lead to goal is called the program hypothesis. These are hypotheses because we are not certain of the causal relationship between the "if" statement and the "then" statement. Projects should be supported only if informed judgment, based on the best available evidence, provides reasonable confidence** that the "then" statement will be achieved.
END-OF-PROJECT STATUS (EOPS)	The objectively verifiable targets that signal the successful completion of the project purpose, that our primary reason for undertaking the project has been achieved.
EVALUATION	Analysis and comparison of actual progress versus prior plans oriented toward improving plans for future implementation.
FOCUS	Concentrating attention on the "main thrust" or truly important issues and avoiding the less important. Focus is particularly relevant when considering project purpose. Project

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* Assumptions at the input level should relate only to those factors that can affect provision of inputs, e.g., "host Minister remains in favor of planned efforts."

** The degree of confidence required should be a function of the value of achieving the intended purpose.

FOCUS, cont.	purpose should be limited to the single "main thrust" of the project, stated as concisely as possible. (Secondary results of a project may be considered as other projects, with cost-benefit analyses based on incremental, rather than total, cost.)
GOAL	The higher level objective immediately above project purpose. That is, the "then" statement for which the project purpose must provide a plausible "if." The rationale by which a project is undertaken should ultimately allow the project purpose to be linked to a goal that is set out as part of AID strategy.
GOOD PROJECT DESIGN	The best available evidence convinces us that providing inputs we can provide will result in achieving what we want to happen. The project design can be analyzed into its "linked hypotheses" to isolate critical factors and ensure that the design is based on convincing hypotheses.
GPOI	An acronym for: Goal Purpose Outputs Inputs. The results expected when the project is successfully completed are made explicit and classified in a four-level hierarchy as part of good project design.
HYPOTHESIS	A statement in the form "if A, then B" where there is uncertainty about the causal relationship between achieving A and achieving B.
INPUTS	Inputs are all those things that are to be controlled, influenced, or used to produce outputs. Inputs include advice, influence, commodities, assistance, training, etc., from whatever source, as long as they are used to produce outputs.
LINKED-HYPOTHESES	Using GPOI, the hypothesis is that achieving the expected results at each level of the GPOI hierarchy will lead to the results at the next higher level; that is

LINKED-HYPOTHESES (cont.)	If inputs are provided, then outputs will be produced If outputs are produced, then purpose will be achieved If purpose is achieved, then goal will be achieved
LOGICAL FRAMEWORK	A summary of project design, emphasizing the results expected when a project is successfully completed (GPOI). Results are expressed as objectively verifiable targets together with means of verification.
MANAGEABLE INTEREST	The Project Manager commits to deliver outputs if the requested inputs are put at his disposal. It is his "manageable interest" to reallocate or otherwise modify inputs, and do whatever else is necessary to produce outputs.
MATRIX FOR THE LOGICAL FRAMEWORK	A worksheet divided into four rows (for goal, purpose, outputs, and inputs) and four colums (for narrative, objectively verifiable targets means of verification, and important assumptions).
OBJECTIVELY VERIFIABLE TARGETS	Good project design must include pre-establishing "what" will be measured to demonstrate progress (indicators) and "how much" (targets). Ways of verifying progress should be objectively stated so that both a proponent of a project and an informed skeptic would agree that progress has or has not been as planned. Pre-establishing objectively verifiable targets helps focus discussion on evidence rather than opinions.
OUTPUTS	The specifically intended results that can be expected from good management of the inputs provided. A project manager is responsible for producing specific outputs; the project manager, line supervision, and program staff of TAB share responsibility for the judgment that producing these outputs will result in achieving purpose.
PROJECT	A planned undertaking that clearly specifies what will be accomplished, over what period of time, and at what cost.

PURPOSE	Our motive for supporting this specific project. The purpose is definitively beyond our manageable interest, and is the result we aspire to if we produce the required outputs. It is the plausible "then" of the statement: "if outputs, then purpose." For example, the purpose of AID projects often is to create a viable institution that effectively performs a function. Achieving the purpose contributes to achieving the goal.
PROJECT DESIGN	A summary of what the project is expected to achieve (purpose), and how it will be achieved with the inputs and time available. The key elements of project design may be summarized in the Logical Framework format.
PROJECT MANAGER	The individual who holds himself personally responsible for the success of a project. More specifically, the individual who is charged with producing the agreed-upon outputs within the specified time and cost constraints. *
TARGET	An indicator with a magnitude to be realized at a specific data. An explicit and objectively verifiable measure of results expected (e.g., 100 tons/yr. in 1975; enabling legislation passed; 17 reports requested and completed; budget for FY 1972 = $10 million).

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* Note that the Project Manager must take reasonable action if necessary to make input-level assumptions come true (see Assumptions). That is, if the host fails to live up to the PROAG, and this will jeopardize production of outputs, the Project Manager is expected to use the means available to him to either gain conformance to the PROAG or overcome the effects of nonconformance.

SECTION IX

REFERENCES

The following references provide convenient entry points to the literature related to some of the "Logical Framework" concepts.

Project Management:

Peter F. Drucker, Managing for Results.

Objectively Verifiable Indicators:

Eugene J. Webb, Donald T. Campbell, Richard D. Schwartz, and Lee Sechrest, Unobtrusive Measures: Nonreactive Research in the Social Sciences.

Research Design:

Edward A. Suchman, Evaluative Research: Principles and Practice in Public Service and Social Action Programs.